tv

PIXEL PLUS

PHILIPS

Contents

♻ End of life directives

Philips is paying a lot of attention to producing environmentally-friendly in green focal areas. Your new TV contains materials which can be recycled and reused. At the end of its life specialised companies can dismantle the discarded TV to concentrate the reusable materials and to minimise the amount of materials to be disposed of. Please ensure you dispose of your old TV according to local regulations.

English

Installation

Operation

Connect peripheral equipment

easy ⓁⒾⓃⓀ

EasyLink features are based on the "one touch operation" approach. This means that a sequence of actions are executed at the same time in both the television and the video cassette recorder, provided both are fitted with the EasyLink function and connected with the eurocable supplied with your video recorder.

Preparation

1 Place the TV on a solid surface.
! 29PT9009: 47 kg !
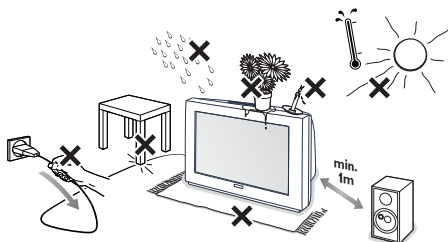
For ventilation, leave at least 5 cm free all around the TV. Do not place the TV on a carpet. To prevent any unsafe situations, do not place any objects on top of the TV. Avoid heat, direct sunlight and exposure to rain or water.

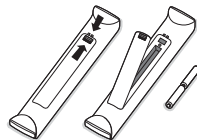**2** Insert the aerial plug firmly into the aerial socket ⊓ at the back of the TV. For best picture quality use the suppressor-aerial cable supplied.

3 Insert the mains plug of the TV in the wall socket having a mains voltage of 220V-240V.

4 **Remote control**: Insert the 2 batteries supplied (Type R6-1,5V).

The batteries supplied do not contain the heavy metals mercury and cadmium. Please check on how to dispose of exhausted batteries according to local regulations.

5 Switch the TV on : Press the power switch (I) on the front of your TV.
A blue indicator on the front of the TV lights up and the screen comes on. If the TV is in standby mode (red indicator), press the **-P+** keys or the red (¹) key on the remote control.

Keys on top of the TV
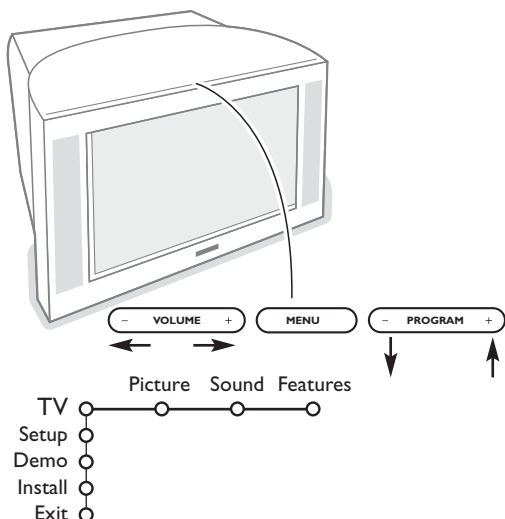
Should your remote be lost or broken you can still change some of the basic settings with the keys on top of your TV.

Press:
- the **VOLUME** - or + key to adjust the volume;
- the **PROGRAM** - or + key to select the TV channels or sources.

Press the **MENU** key to summon the main menu without the remote control.
Use:
- the **VOLUME** - or + key and the **PROGRAM** - or + key to select menu items in the directions as shown;
- the **MENU** key to confirm your selection.

Note:
*When activated via the **MENU** key on top of the TV, only **Exit** lets you dismiss the menu.*
*Navigate to **Exit** and press the **MENU** key.*

Use of the remote control RC4337

*Note: For most keys pressing a key once will activate the function. Pressing a second time will de-activate it. When a key enables multiple options, a small list will be shown. Press repeatedly to select the next item in the list. The list will be removed automatically after 4 seconds or press **OK** to remove immediately.*

VCR DVD TV SAT AMP
Audio- and Video equipment keys (p. 17)

⊟ Select peripherals (p. 16)

● ◄◄ ■ ► ►►
Audio- and Video equipment keys (p. 17)

⊙ Time display
The time is displayed on the screen.

⊡ Teletext guide on/off p. 12

OK Press this key
• to activate your choice, when in the menus.
• to display the programme list.

►◄ Freeze To freeze the picture.

◢ To adjust the volume.

◄✕ Interrupt the sound or restore it.

⌊i+⌋ On Screen information
Press to display information about the selected TV channel and programme.

Menu/Remote control info
When a menu is on screen, press ⌊i+⌋ to display info on the selected menu item. For information on the remote control functions, while the menu info is displayed, press any key on the remote control.
The normal function of the key is not executed.

⏻ Standby
Press to switch the TV on or off. When switched off, a red indicator lights up.

⟳ Pixel Plus demo on/off
In the right part Pixel Plus and Digital Natural Motion are switched on.

▤ Teletext on/off p. 13

MENU Main menu on/off see p. 4

P Programme selection
To browse through the TV channels and sources stored in the favourite list.

0/9 Digit keys
To select a TV channel.
For a two digit programme number, enter the second digit within 2 seconds. To switch immediately to a selected one digit TV channel, keep the digit key pressed a bit longer.

**⟨⟩ Surround mode
Incredible surround**

With stereo transmission, and when Incredible surround is selected, it seems as though the loudspeakers are spread further apart from one another.

Virtual Dolby surround
Optimal with Dolby surround signals. Enables you to experience the effect of Dolby surround Pro Logic, reproducing a rear sound effect. See Sound menu, 3D effect, p. 10.
Note: You can make the same selection in the Sound menu, surround mode, p. 10.

♪ ▢ Smart keys
To select predefined picture and sound settings.
Personel refers to the personal preference settings selected in the sound and picture menu.

3
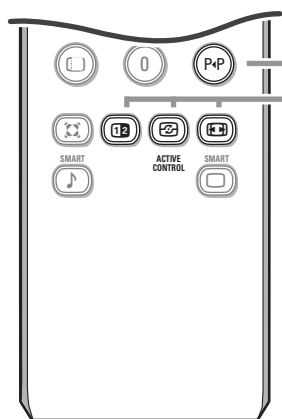
P◂P Smart surf

With this key you can easily switch between 2 up to 9 different TV channels or sources. Press the **OK** key or wait for the time out to dismiss the Smart surf display.

12 no function

⊞ **Active control**

⊞ **Picture format**

Auto format
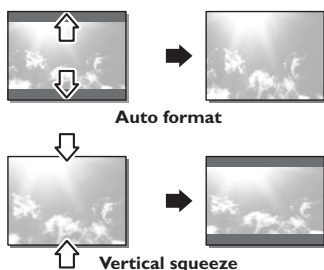
Vertical squeeze

Press this key repeatedly to select another picture format: Auto format, 4:3 or Vertical squeeze. Auto format makes the picture fill the screen as much as possible. Vertical squeeze squeezes the picture to a wide screen picture format.

To use the menus

OK key to activate

cursor to select adjustments

return or switch main menu on/off
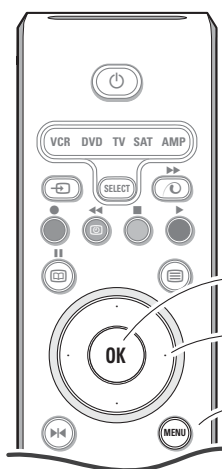
Press the ⊞ key to get information about the selected menu item.

❶ Press the **MENU** key on the remote control to summon the main menu. At any moment you can exit the menu by pressing the **MENU** key again.
Note: If you have connected equipment with Cinema Link, more menu items are present.

	Picture	Sound	Features
TV			
Setup			
Demo			
Install			
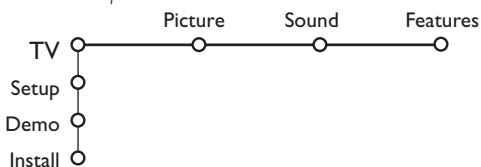
❷ Use the cursor in the up/down direction to select the **TV**, **Setup**, **Demo** or **Install** menu.
Use the cursor left/right to select **Picture**, **Sound** or **Features**.
Note: Sometimes not all the menu items are visible on the screen (indicated by a cluster of blue balls). Use the cursor down or right to reveal all items.

❸ Use the cursor in the left/right direction to select the menu item.

❹ Use the cursor up/down again to select the control you want to select or to adjust.

Note: Items temporary not available or not relevant are displayed in a light grey colour and cannot be selected.

Installation

The installation menu contains the following items:

Language	Country	Automatic install	Manual install	Give name	Reshuffle	Favourite programmes

Install o———o———o———o———o———o———o———o

EasyLink

If your video recorder has an EasyLink function, during installation, the language, country and available channels are automatically transmitted to the video recorder.

Select the menu language and country

Language

Install o————o—((((

    English o
    Deutsch o
    Français o

Country

Install o———o———o—((((

    Austria o
    Belgium o
    Croatia o

❶ Press the **MENU** key on the remote control.

❷ Use the cursor down to select **Install**.

❸ Use the cursor right to select **Language**.
Follow the instructions on screen.

❹ Use the cursor up/down to select your preferred language and press the **OK** key to confirm your selection.

❺ Use the cursor right to select **Country**.

❻ Select the country where you are now located and press the **OK** key.
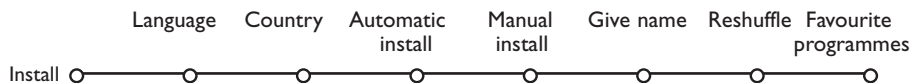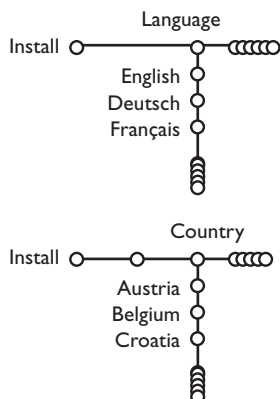Select **Other** when none of the countries applies.

❼ Proceed with the **Install** menu.

Store TV channels

After language and country are set correctly, you can now search for and store the TV channels in two different ways: using Automatic Installation or Manual Installation (tuning-in channel by channel). Select your choice with the cursor right.

Automatic installation

Automatic install

Install o———o———o———((((

    Install o———o Start
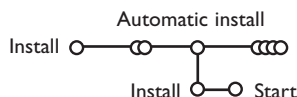
❶ Select **Automatic install** in the Install menu.
Note: All channels must be unlocked in order to autoprogram. If requested, enter your code to unlock all channels. (See TV, Features menu, Childlock, p. 11.)

❷ Press the cursor down. The autoprogramming option label **Start** appears.

❸ Press the cursor right.

❹ The message **Searching** appears and the progress of autoprogramming is displayed.

If a cable system or a TV channel which broadcasts ACI (Automatic Channel Installation) is detected, a programme list appears. Without ACI broadcast, the channels are numbered according your language and country selection. You can use Reshuffle to renumber them. See p. 6.

*It is possible that the cable company or the TV channel displays a broadcast selection menu. Layout and items are defined by the cable company or the TV channel. Make your choice with the cursor and press the **OK** key.*

Manual installation

Manual install

Install O──ⵕ──────O─────ⵕ
              O Selection mode
              O System
              O Programme
              O Search
              O Fine tune
              O Store
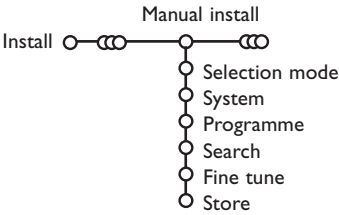
Searching for and storing TV channels is done channel by channel. You must go through every step of the Manual Installation menu.

❶ Select **Manual install** in the Install menu.

❷ Press the cursor down.
Follow the instructions on screen.

Note: Search or direct selection of a TV channel.
If you know the frequency, the C- or S-channel number, enter the 3 or 2 digits of the frequency or the channel number directly with the digit keys 0 to 9 (e.g. 048). Press the cursor down to proceed.

Repeat to search for another TV channel.

Give name

Give name

Install O──ⵕ──────O─────ⵕ
  VCR1 O
  BBC1 O ◄●►
  BBC2 O
  CNN O
  TVE O
    .....
    O

● Space	● Delete
A B C D E F G	1 2 3
H I J K L M N	4 5 6
O P Q R S T U	7 8 9
V W X Y Z	0
● Shift	● Special

It is possible to change the name stored in the memory or to assign a name to a TV channel for which a name has not yet been entered. A name with up to 5 letters or numbers can be given to the programme numbers 0 to 99.
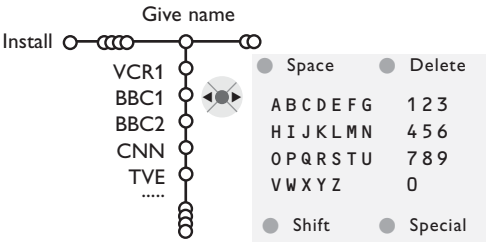
❶ Select **Give Name** in the Install menu and press the cursor down.

❷ Select the programme number.
Note: keep the cursor up/down pressed to scroll through the programme list quickly.

❸ Press the cursor right.
A keyboard appears on the screen.
Press the cursor right to enter the keyboard.
Press the cursor up/down, left/right to select the first character and press **OK**. Repeat for every character you want to enter.
Select **Space** to enter a space; **Delete** to erase the highlighted character in the name entered; **Shift** to display upper- or lowercase characters on the keyboard; **Special** to display special characters on the keyboard. Press **OK** to confirm.

❹ Press the cursor left repeatedly when you have finished the name giving.

❺ Select another programme number and repeat steps ❸ to ❹.

Reshuffle the programme list

You can change the order of the stored TV channels.

❶ Select **Reshuffle** in the Installation menu.

❷ Follow the instructions on screen.

Select Favourite TV channels

❶ Select Favourite programmes in the Install menu.

❷ Select your programme number with the cursor up/down.

❸ Select **Yes** or **No** with the cursor right.

❹ Repeat ❷ and ❸ for every TV channel or external you want to make a favourite or a non-favourite TV channel or external.

TV Setup

General Source Decoder

Setup ○───────●───────○───────○
Menu background ○
Smart surf ○
Factory settings ○
OSD ○
Programme title ○
Teletext level 2.5 ○
Auto surround ○
Set/Change code ○
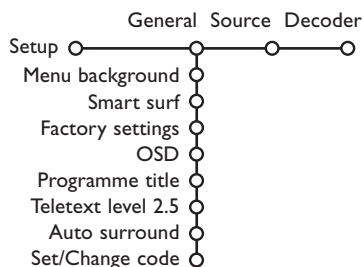
The Setup menu contains items that control the settings of the TV's functions, features, services and peripherals you may have connected.

The **General** menu allows you to change various settings that are presumably adjusted less frequently than most other settings.
The **Source** menu allows you to select a source.
The **Decoder** menu allows you to define one or more programme numbers as decoder programme numbers.

Press the ⓘ+ key on the remote control to get information about the selected menu item.

General

Smart surf

❶ Select **Smart surf**.

❷ With the cursor left/right, select
• **2 programmes** if you want the P◄P key to toggle between the current and the previously selected channel,
• **9 programmes** if you want the P◄P key to summon a list of up to 9 channels which can be selected,

To add/remove a channel or source:

Tune to the channel or source you wish to add or remove. Press the P◄P key and press the cursor right to add or remove.
Note: If there are already 9 channels/sources in the list, the one at the bottom of the list will be removed.

Factory settings

This resets the picture and sound settings to their predefined factory values, but maintains the channel installation settings.

OSD (On Screen Display)

See Use of the remote control, p. 3, ⓘ+ On screen information.

❶ Select **OSD**.

❷ Select **Normal** to activate the continuous display of the programme number. Also TV channel and programme information are extended. **Minimum** will display reduced channel information.
Note: When subtitles is switched on, see Features, p.10, continuous display of the programme number is not possible.

Teletext level 2.5

Some broadcasters offer the opportunity to see more colours, other background colours and nicer pictures in the teletext pages.

❶ Select **Teletext level 2.5**.

❷ Press the cursor right to select **Teletext level 2.5 On** to take advantage of this feature.

❸ Press the cursor right again to select **Teletext level 2.5 Off** if you like the more neutral teletext layout.
The selection made is valid for all channels which broadcast teletext level 2.5.
Note: It may take a few seconds before teletext broadcast switches over to Teletext level 2.5.

Auto Surround

Sometimes the broadcaster transmits special signals for Surround Sound encoded programmes. The TV automatically switches to the best surround sound mode when **Auto Surround** is switched **On**.

Set/Change code

The Child lock feature (see TV, Features, p. 11) allows you to lock channels to prevent others from watching certain programmes. To watch locked channels, a 4-digit code must be entered. The Set/Change code menu item allows you to create or change a Personal Identification Number (PIN).

❶ Select **Set/Change code**.

❷ If no code exists yet, the menu item is set to Set code.
If a code has previously been entered, the menu item is set to **Change code**. Follow the instructions on screen.

Important: You have forgotten your code !

❶ Select **Change code** in the General menu and press **OK**.

❷ Press the cursor right and enter the overriding code 8-8-8-8.

❸ Press the cursor again and enter a new personal 4-digit code. The previous code is erased and the new code is stored.

Source

Source

Setup ○——○——○
                  ○ EXT1
                  ○ EXT2
                  ○ SIDE
                  ○ Centre input
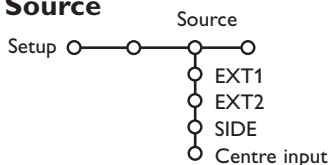
This menu allows you to indicate the peripheral you connected to one of the external inputs.

❶ Press the cursor right to enter the list of types of peripherals attached to the selected input.

❷ Select the peripheral device with the cursor up/down.

Once you have selected the source type, e.g. DVD, this source will automatically be selected when your remote control is in DVD mode, see p. 3, and when you press the ⊕ key on the remote control.

Centre input

When you have connected a Cinema Link surround receiver to the TV (See separate Cinema Link instruction manual supplied) and you have selected **EXT1** as centre input, the loudspeakers of the TV will act as centre speaker, making a separate centre speaker unnecessary.

Decoder

Decoder

Setup ○—○—○—○
                  ○ Programme
                  ○ Status
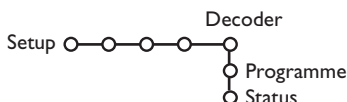
If a decoder or a descrambler is connected, see p. 15, you can define one or more programme numbers as decoder programme numbers.

❶ Select **Decoder** with the cursor right.

❷ Select **Programme**.

❸ Select the programme number under which you have stored the programme coming from your decoder.

❹ Select **Status**.
• Select the input used to connect your decoder: **None**, **EXT1** or **EXT2**.
• Select **None** if you do not want the selected programme number being activated as a decoder programme number.

*Note: Select **EXT2** when the decoder is connected to your EasyLink video recorder.*

Demo

TV ○
Setup ○
Demo ○——○ Auto demo
Install ○   ......

              ○ Dealer demo - Digital options
                             - Light sensor
                             - Comb filter
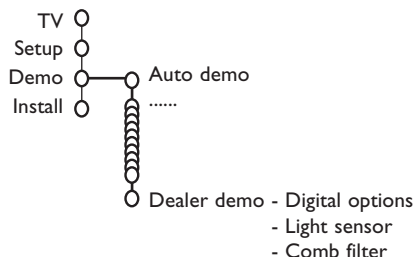
The Demo menu allows to demonstrate the TV features separately or in a continuous loop.

If **Auto demo** has been selected the demo will automatically present the features sequentially in a loop. Press one of the cursor keys to stop the Auto demo.
If one of the features has been selected, this particular feature demo will run only once, and the Demo menu will reappear.

Note: The Dealer demo is not part of the automatic sequence and can only be activated separately.

TV menu

Press the **MENU** key on the remote control to summon the main menu.

Press the i+ key on the remote control to get information about the selected menu item.

Picture menu

```
              Picture  Sound  Features
TV o————————o———o————————o
Smart picture   o
Contrast        o
Brightness      o
Colour          o
Sharpness       o
Tint            o
Digital options o
Dynamic contrast o
DNR             o
Colour enhancement o
(Hue)           o
Picture format  o
```

Smart picture

Select **Smart picture** to display a list of predefined picture settings, each corresponding with specific factory settings.
Personal refers to the personal preference settings of picture in the picture menu.

Digital options

Pixel Plus is the most ideal setting, doubles the horizontal resolution and increases the number of lines with 33%. You may consider to select Movie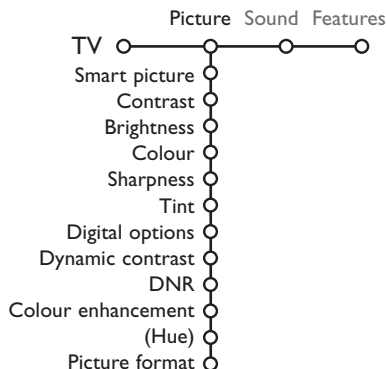 Plus in case a halo effect should disturb you. Dependent on your own preference, select Double lines, or 100 Hz Digital Scan.

Note: When 60 Hz NTSC material is used, the options are changed to Pixel Plus, Movie Plus or Progressive, progressive scan without motion compensation.

1 Press the cursor right to select **Picture**.

2 Select the menu items in the Picture menu with the cursor up/down.

3 Adjust the settings with the cursor left/right or enter the list of submenu items with the cursor right. Select a submenu item with the cursor up/down.
Note: To remove the menu background before adjusting the picture settings, see Select TV setup, General, p. 7.

Active Control

The TV continuously measures and corrects all incoming signals in order to provide the best picture possible.

1 Press the ⌦ key on the remote control.

2 The **Active Control** menu appears.

3 Press the cursor up/down to select the Active Control values **Off**, **Minimum**, **Medium** (recommended) or **Maximum**.
The picture settings are being optimised continuously and automatically which is displayed by bars. The menu items can not be selected.

4 Press the cursor right to select **Smart Picture**.

5 Press the cursor up/down to select one of the predefined picture settings.

6 Press the cursor right to select **Active Display**.

7 Press the cursor up/down to select **Show bars** or **Off**.
When you select Dynamic contrast, Pixel Plus, Digital Noise Reduction or Digital Natural Motion, the TV screen is divided into two parts: in the left part the selected picture quality setting is switched off; in the right part it is switched on.

8 Press the ⌦ key again to switch off the Active Control menu.

9

Sound menu

```
                Sound
    TV o───o───o───────o
      Smart sound  o
        Equalizer  o
          Volume   o
         Balance   o
        Loudness   o
Headphone volume   o
   Surround mode   o
     (Dual I-II)   o
    (Mono/Stereo)  o
 (Nicam/Analogue)  o
      (3D effect)  o
             AVL   o
    Delta volume   o
```
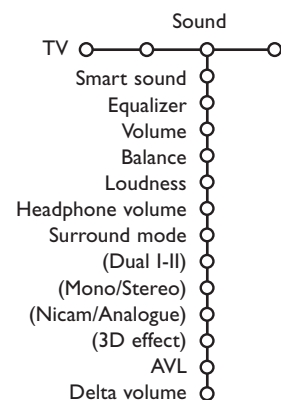
❶ Press the cursor right to select **Sound**.

❷ Select the menu items in the Sound menu with the cursor up/down and adjust the settings with the cursor left/right. Remember, control settings are at normal mid-range levels when the bar scale is centred.
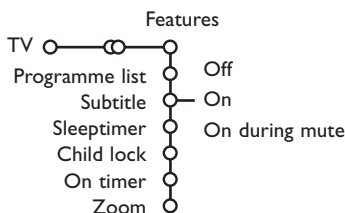
Smart sound

Select **Smart sound** to display a list of predefined sound settings, each corresponding with specific factory settings of Treble and Bass.
Personal refers to the personal preference settings of sound in the sound menu.

Notes:
- Some menu items are only available in case of a Cinema Link configuration and when the Cinema Link is activated. Others are steered by the audio receiver instead of by the TV. See the separate Cinema Link booklet supplied.
*- **Dual** I-II is only available with dual sound transmission.*
*- **Mono/Stereo** is only selectable in case of analogue stereo transmission.*
*- **Nicam/Analogue** is only selectable in case of Nicam transmission.*

Features menu

```
              Features
   TV o───oo──────o
Programme list  o      Off
     Subtitle   o───o  On
    Sleeptimer  o      On during mute
    Child lock  o
     On timer   o
        Zoom    o
```

❶ Press the cursor right to select **Features**.

❷ Select the menu items with the cursor up/down and adjust the settings with the cursor left/right.

Programme list

Press the **OK** key to switch over to the selected TV channel or external.

Select subtitles

The subtitle page must be stored for each TV channel:
Switch on teletext and select the proper subtitle page from the index. Switch off teletext.
Subtitle On will automatically display them on the selected TV channels if subtitles are in the transmission. A symbol will indicate that the mode is on.
Select **On during mute** when you want to have the subtitles automatically displayed only when the sound has been muted with the 🔇 key on the remote control.

Child lock

❶ Select Child lock.

```
                    Lock
Child lock ○── Custom lock ──── Lock after
                    Unlock          Programme lock
```

❷ Press the cursor right to enter the Child lock menu. You're
summoned to enter your code.
*Note: You have to re-enter your code each time you enter the child
lock menu.*

Important: You have forgotten your code ! See p. 8.

❸ Select one of the menu items of the child lock menu:
   • **Lock** if you want to lock all channels and externals.
   • **Custom lock** and press the cursor right.
     Select:
   - **Lock after** if you want to lock all channels and externals
     from a certain time onwards.
     Press the cursor right and enter the time with the cursor
     up/down and right. Press the **OK** key to validate.
   - **Programme lock** if you want to lock a certain TV channel
     or external;
   • Select **Unlock** to disable all locks you have set.

On timer

❶ Select **On timer** with the cursor down.

```
                        VCR1     Sunday
                Off     BBC2     Monday
                        CNN      ......
On timer ○──On ──── TVE  ────      ──── 15:45
                        ▶.....    Daily
```

❷ Select **On** with the cursor right.

❸ Press the cursor right again to enter the programme list.

❹ Select the TV channel or external you want your TV to switch
to on a selected time and day.

❺ Press the cursor right again to select a day of the week or to
select Daily.

❻ Press the cursor right once again to enter the time with the
digit keys or with the cursor up/down and press the **OK** key to
activate.

❼ Press the **MENU** key to turn off the menu.
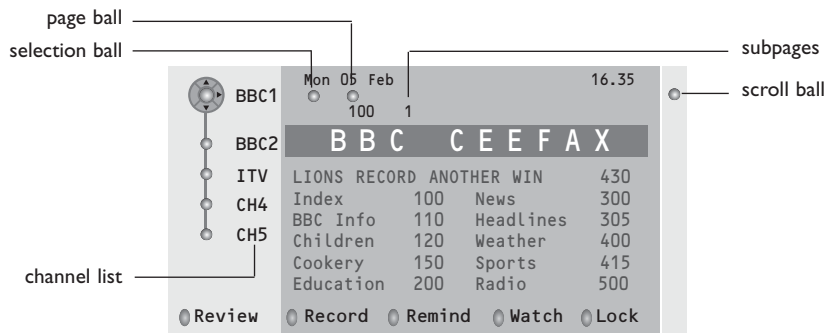*Note: To check your timer settings, press the [i+] key.*

Zoom

❶ Select **Zoom** with the cursor down and press the **OK** key.

❷ Press the **OK** key to select one of the zoom magnifications (x1,
x4, x9, x16).

❸ Additionally you can shift the selected zoom window over the
screen with the cursor keys up/down, left/right.

❹ Press the **MENU** key to turn off the zoom function.

Teletext guide

TV channels which broadcast teletext also transmit a page with the programme guide of the day.
If the displayed teletext programme guide page satisfies the Video Programming via Teletext (VPT)
requirements, it will be possible to record, remind, watch or lock programmes.

page ball
selection ball
subpages
scroll ball

```
             Mon 05 Feb                    16.35
   BBC1        o    o
                    100    1
   BBC2       B B C     C E E F A X

   ITV        LIONS RECORD ANOTHER WIN      430
   CH4        Index         100  News        300
              BBC Info      110  Headlines   305
   CH5        Children      120  Weather     400
              Cookery       150  Sports      415
              Education     200  Radio       500

   Review    Record   Remind   Watch   Lock
```

channel list

❶ Press the ⌷ key.

❷ Select a TV channel with the cursor up/down and press **OK**.

❸ Move the cursor up to the top of the channel list where the name of the selected TV channel reappears.

❹ Press the cursor right to move the puck over the selection ball.

❺ In the teletext index page, look for the programme guide page of the day or the following day.

❻ Enter with the digit keys, the programme guide page number.
Press the cursor right twice to move the puck to the right to choose one of the subpages if available.

If the selected programme satisfies the VPT requirements, the TV will remember the last selected teletext page number of that channel that contains programme guide information and indicates which programme starts at what time.
Every time you press the ⌷ key, the teletext programme guide page of the selected TV channel will be available.

Note: The broadcaster is responsible for the content of the information.

Basic functions

Press one of the grey, red, green, yellow or blue keys to activate a Teletext Guide function. The keys appear in grey if the function is not available.

Review: this menu provides a list of programmes that are marked as reminders, those that have to be recorded and those that are locked. This menu can be used to change or remove marked programmes.

Record: to programme the recording of the video recorder (if it has a NEXTVIEWLink function and is connected to **EXT. 2**).

Remind: to automatically switch on the TV if it is in standby or to display a message if the TV is on.

Lock: to lock certain programmes to prevent recording or watching.
For the functions Record, Remind or Lock, a small menu pops up in which you can choose the interval: once, daily or weekly, or clear an earlier made record, remind or lock setting. The default interval is set to **Once**. To confirm the frequency, press the **OK** key.
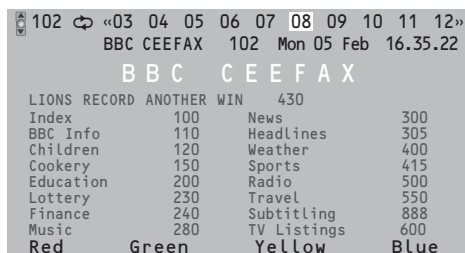
Watch: to watch the selected and currently broadcast programme.

Teletext

Most TV channels broadcast information via teletext. This TV has a 1200 pages memory that will store most broadcasted pages and subpages to reduce waiting time. After each programme change, the memory is refreshed.

Switch Teletext on and off

Press ▤ to switch the teletext on.

```
▤102 ⇔ «03 04 05 06 07 08 09 10 11 12»
        BBC CEEFAX  102  Mon 05 Feb 16.35.22
          B B C    C E E F A X
LIONS RECORD ANOTHER WIN   430
Index          100   News          300
BBC Info       110   Headlines     305
Children       120   Weather       400
Cookery        150   Sports        415
Education      200   Radio         500
Lottery        230   Travel        550
Finance        240   Subtitling    888
Music          280   TV Listings   600
Red      Green        Yellow       Blue
```

Select a Teletext page

- Enter the desired page number with the digit keys, the cursor keys up/down or with the **-P+** key.
- Select the options at the bottom of the screen with the colour keys.

Previously selected teletext page

(Only possible in case there is no list of favourite teletext pages available. See p. 14.)
Press the P◂P key.

Select the index teletext page

Press the grey colour key ▶▶ to display the main index (usually p.100).

Only for T.O.P teletext broadcasts:

Press ⅰ+ . A T.O.P. overview of the teletext subjects available is displayed.
Select with the cursor up/down, left/right the desired subject and press the **OK** key.
Not all TV channels broadcast T.O.P. teletext.

Select subpages

When a selected teletext page consists of different subpages, a list of available subpages appears on the screen.
Press the cursor left or right to select the next or previous subpage.

Enlarge a Teletext page

Press ⊞ repeatedly to display the upper teletext part, the lower teletext part and then to return to the normal teletext page size. When the teletext page is enlarged, you can scroll the text, line by line using the cursor up/down.

Hypertext

With hypertext you can quickly jump to a pagenumber or search for a specific word shown on the current teletext page.

❶ Press the **OK** key to highlight the first word or a number on the page.

❷ Use the cursor up/down, left/right to select any other word or number you want to search for.

❸ Press the **OK** key to confirm. The search starts. A message appears at the bottom of the screen to indicate the searching, or that the word or page is not found.

❹ Use the cursor up to exit hypertext.

Teletext menu

❶ Press the **MENU** key to activate the menu.

❷ Press the cursor up/down to select the menu items.

❸ Press the cursor right to activate.

Reveal

Reveals/conceals hidden information on a page, such as solutions to riddles and puzzles.
Press the cursor right to activate.

Favourite

You may create a list of eight favourite teletext pages in total, selected from various TV channels.

To add a favourite page to the list:

❶ Select a favourite teletext page.

❷ Select **Favourite** in the teletext menu and press the cursor right to enter the list.

❸ Press the cursor right again to add the page.

❹ Press the **MENU** key to watch the current page.

### To watch a favourite page from the list:

When in Teletext, use the P◄P key to browse through the favourite pages of the TV channel actually selected.
Note: Only the pages of the current channel can be selected.

Search

Selecting a word
On the keyboard on screen you can type in a random word you want to search for in the teletext pages. Whether upper- or lowercase is used has no influence.
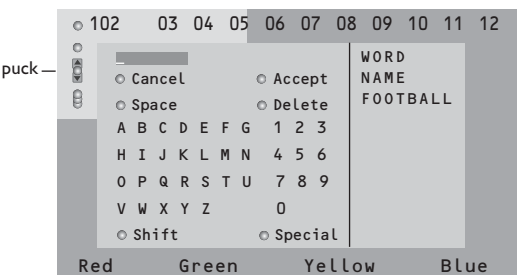
❶ Press the cursor right to enter the keyboard.

❷ Press the cursor left/right, up/down to select the characters, words or functions.

❸ Press the **OK** key to confirm each character selected.

❹ Select **Cancel** to cancel the word; **Space** to enter a space; **Delete** to delete the last character selected; **Shift** to switch between lowercase or capital characters; **Special** to display special characters on the keyboard and press the **OK** key.

❺ Press the cursor left repeatedly to return to the Teletext menu again.

Searching a word
❶ Type in the word on screen or select a word from the history list on the right and press **OK**.

❷ Select **Accept** and press **OK** again. The message **Searching** appears.

❸ To cancel the searching or to search for a new word, select **Keyboard** and press **OK**.

❹ When a word is not found, a message appears. When the word is found, it is highlighted in the teletext page. To continue the search, press the **OK** key.

Cycle subpages *(if available)*

Makes the subpages cycle automatically.
Press the cursor right to activate and to de-activate again.

Window text

This displays only the top part of the teletext page at the bottom of the screen. You may scroll through the teletext page with cursor up/down.
Press the **OK** key to activate.
Press the **MENU** key to return to the Teletext menu..

Timed page

To display a specific page from a selected TV channel at a certain time.

❶ Press the cursor right and select **Yes** or **No**.

❷ Enter the time and pagenumber with the cursor keys or the digit keys.
Note: Teletext does not have to remain switched on, but you should watch the TV channel you have selected the specific page from.

❸ Press the cursor left to return to the TV menu again.

Language

If the displayed characters on screen do not correspond with the characters used by the teletext broadcaster, you can change the language group here.
Select **Group 1** or **2** with the cursor right.

Press the **MENU** key to leave the Teletext menu.

Connect Peripheral Equipment

There is a wide range of audio and video equipment that can be connected to your TV.
The following connection diagrams show you how to connect them.

*Note: **EXT. 1** can handle CVBS and RGB, **EXT. 2** CVBS and Y/C. It is preferred to connect peripherals with RGB output to **EXT. 1** as RGB provides a better picture quality.*
*If your recorder is provided with the Easylink function, it should be connected to **EXT. 2** to benefit from the EasyLink functionality.*

Recorder (VCR-DVD+RW)
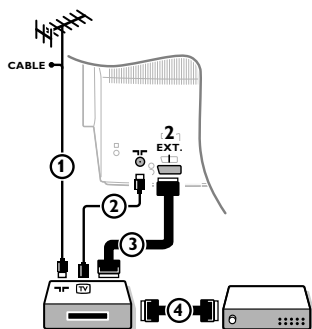
Connect the aerial cables ①, ② and, to obtain the optimum picture quality, eurocable ③ as shown.
If your recorder does not have a euroconnector, the only possible connection is via the aerial cable. You will therefore need to tune in your recorder's test signal and assign it programme number **0** or store the test signal under a programme number between **90** and **99**, see Manual installation, p. **6**. See the handbook of your recorder.

Decoder and Recorder

Connect a eurocable ④ to your decoder and to the special euroconnector of your recorder. See also the recorder handbook. See Decoder, p. **8**. You can also connect your decoder directly to **EXT. 1** or **2** with a eurocable.

Other equipment (satellite receiver, decoder, DVD, games, etc.)
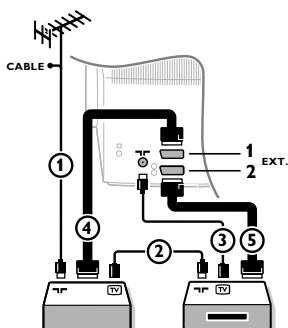
❶ Connect the aerial cables ①, ② and ③ as shown (only if your peripheral has TV aerial in-/output).
Connect your equipment with a eurocable ④ or ⑤ to one of the euroconnectors **EXT.1** or **2** to obtain a better picture quality.

❷ Look for the test signal of your peripheral in the same way as you do for a recorder.

❸ Make a selection in the Setup, Source menu, p. **8**.

Side connections
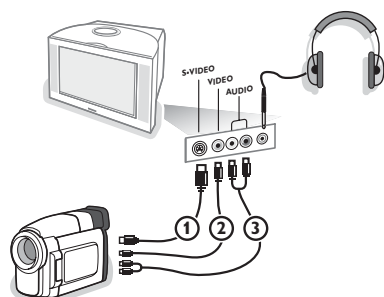
Camera or Camcorder

❶ Connect your camera or camcorder as shown.

❷ Connect to **VIDEO** ② and **AUDIO L** ③ for mono equipment. For stereo equipment also connect **AUDIO R** ③.
S-VHS quality with an S-VHS camcorder is obtained by connecting the S-VHS cables with the **S-VIDEO** input ① and **AUDIO** inputs ③.
Do not connect cable ① and ② at the same time. This may cause picture distortion !

Headphone

❶ Insert the plug into the headphone socket 🎧 as shown.

❷ Press 🔇 on the remote control to switch off the internal loudspeakers of the TV.
The headphone impedance must be between 8 and 4000 Ohm. The headphone socket has a 3.5 mm jack.
In the Sound menu select **Headphone volume** to adjust the headphone volume.

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Stereo amplifier and two extra front speakers
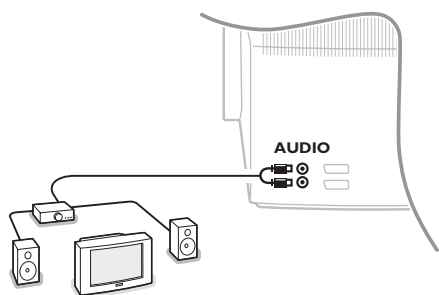
AUDIO

❶ Connect the audio cables to the **AUDIO** input of your amplifier and to **AUDIO L** and **R** at the back of your TV.

❷ The output level is controlled by the volume control of the amplifier.

Note: Switch off the TV and your audio amplifier before connecting them. Set the audio amplifier's volume to minimum.

To select connected equipment

Press the ⊟ key on the remote control repeatedly to select **EXT1**, **EXT2** or **SIDE** according to where you connected your equipment at the back or the right side of your TV.

Remark : Most equipment (decoder, recorder) carries out the switching itself, when it is switched on.

Cinema Link surround receiver

See the separate supplied Cinema Link instruction manual.

Attention: the sound info on screen will not correspond with the actual sound reproduction.

Recorder or DVD with EasyLink

The recorder (VCR or DVD+RW) or DVD can be operated with the remote control via the Recorder or DVD menu on screen.

Recorder ○──○──○──○──○──○──○──○

◀◀ ◀ ■ ▶ ▶▶ ● ▲
Rwd Play Stop Play Ffw Rec Eject

DVD ○──○──○──○──○──○──○

◀◀ ◀ ■ ▶ ▶▶ ▲
Prev. Play Stop Play Next Eject
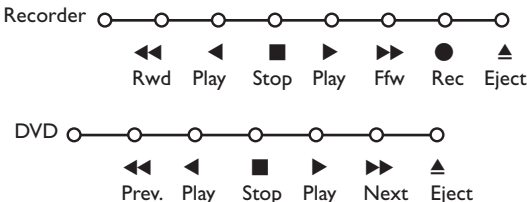
❶ Press the **MENU** key on the remote control.

❷ Select the **Recorder** or **DVD** menu with the cursor up/down.

❸ Press the cursor left/right, up/down to select one of the recorder or DVD functions.

Audio- and video equipment keys

Most of the audio and video equipment from the Philips range of products can be operated with the remote control of your TV.

Press the **Select** key to operate any of the equipment indicated in the display. Another device can be selected by pressing Select repeatedly within 2 seconds. The led will blink slowly to indicate the device.
Press one of the keys on the remote control to operate the peripheral equipment.
To return to TV mode press **Select** while the led is blinking.
When no action is taken within 60 seconds, the remote goes back to TV mode.

⏻	to switch to standby	**MENU**	to switch the menu on or off
❚❚/▭	for pause (**DVD, CD, VCR**)	**- P +**	for chapter, channel, track selection
●	for record	0 to 9	digit entry
◀◀	for rewind (**VCR**, **CD**); search down (**DVD**, **AMP**)	P◀P	tape index (**VCR**), select a **DVD** chapter, select a frequency (**AMP**)
■	for stop		
▶	for play	⏲	VCR timer
▶▶	for fast forward (**VCR**, **CD**); search up (**DVD/AMP**)	⟨⟩	surround on/off (**AMP**, **CD**)
▭	to select your choice of subtitle language (**DVD**)	cursor up/down	to select the next or the previous disc (**CD**)
▤	to select a **DVD** title; RDS display (**AMP**); info on screen (**CD**)	cursor left/right	to select the previous or following track (**CD**); to search up/down (**AMP**)
i+	display information		

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Care of the screen	Do not touch, push or rub or strike the screen with anything hard as this may scratch, mar or damage the screen permanently. And please do not rub with dust clothes with chemical treatment. Do not touch the surface with bare hands or greasy cloth (some cosmetics are detrimental to the screen). Unplug the TV before cleaning the screen. When the surface becomes dusty, please wipe gently with absorbent cotton or other soft materials like chamois soaks. Do not use acetone, toluene and alcohol because they cause chemical damage. Do not use liquid cleaners or aerosol cleaners. Wipe off saliva or water drops as soon as possible. Their long time contact with the screen causes deformations and colour fading.
Poor Picture	• Have you selected the correct TV system in the manual installation menu ? • Is your TV or house aerial located too close to loudspeakers, non-earthed audio equipment or neon lights, etc.? • Mountains or high buildings can cause double pictures or ghost images. Sometimes you can improve the picture quality by changing the direction of the aerial. • Is the picture or teletext unrecognisable? Check if you have entered the correct frequency. See Installation, p. 6. • Are brightness, sharpness and contrast out of adjustment? Select Factory settings in the Setup, General menu, p. 7. • Sometimes poor picture quality is possible when having activated an S-VHS camera or camcorder connected to the right side of your TV and another peripheral is connected to **EXT 1** or **2** at the same time. In this case switch off one of the other peripherals.
No picture	• Is the aerial connected properly? • Are the plugs tightly connected in the aerial socket? • Is the aerial cable in good condition and does it have suitable plugs?
No sound	• No sound on any channel? Check the volume isn't at minimum. • Is the sound interrupted with the mute key 🔇 ?
No solution found for your picture or sound problem ?	Switch your TV off and then on again once. Never attempt to repair a defective TV yourself. Check with your dealer or call a TV technician.
Remote control	• If your TV no longer responds to the remote control, the batteries may be dead or the wrong mode (TV or other peripheral, see p. 3) is selected. • You can still use the **MENU** key and the -/+ keys at the top of your TV.
Standby	Your TV consumes energy in the standby mode. Energy consumption contributes to air and water pollution. Power consumption: 1 W.

Table of TV frequencies.
Frequenztabelle der Fernsehsender.
Liste des fréquences des émetteurs.
Frequentietabel TV-Zenders.
Tabella delle frequenze delle trasmittenti.
Lista de las frecuencias de las emisoras.
Lista das frequências dos emissores.
Liste over TV senderne.
Tabell over TV-frekvenser.

Tabell över TV-frekvenser.
TV-taajuustaulukko.
Κατάλογος συχνοτήτων πομπών.
Список частот передатчиков.
A televizió–adóállomások frekvenciáinak a listája.
Lista częstotliwości stacji nadawczych.
Seznam frekvenčních pásem vysílačů.
Zoznam frekvenčných pásiem vysielačov.

EUROPE		E-EUROPE		FRANCE		ITALY	
CH ..FREQ (MHz)		CAN..FREQ (MHz)		CAN..FREQ (MHz)		CAN..FREQ (MHz)	
E2	48.25	R1	49.75	2	55.75	A	53.75
E3	55.25	R2	59.25	3	60.50	B	62.25
E4	62.25	R3	77.25	4	63.75	C	82.25
E5	175.25	R4	85.25	5	176.0	D	175.25
E6	182.25	R5	93.25	6	184.0	E	183.75
E7	189.25	R6	175.25	7	192.0	F	192.25
E8	196.25	R7	183.25	8	200.0	G	201.25
E9	203.25	R8	191.25	9	208.0	H	210.25
E10	210.25	R9	199.25	10	216.0	H1	217.25
E11	217.25	R10	207.25	B	116.75	S1	105.25
E12	224.25	R11	215.25	C	128.75	S2	112.25
S1	105.25	R12	223.25	D	140.75	S3	119.25
S2	112.25	S1	105.25	E	159.75	S4	126.25
S3	119.25	S2	112.25	F	164.75	S5	133.25
S4	126.25	S3	119.25	G	176.75	S6	140.25
S5	133.25	S4	126.25	H	188.75	S7	147.25
S6	140.25	S5	133.25	I	200.75	S8	154.25
S7	147.25	S6	140.25	J	212.75	S9	161.25
S8	154.25	S7	147.25	K	224.75	S10	168.25
S9	161.25	S8	154.25	L	236.75	S11	231.25
S10	168.25	S9	161.25	M	248.75	S12	238.25
S11	231.25	S10	168.25	N	260.75	S13	245.25
S12	238.25	S11	231.25	O	272.75	S14	252.25
S13	245.25	S12	238.25	P	284.75	S15	259.25
S14	252.25	S13	245.25	Q	296.75	S16	266.25
S15	259.25	S14	252.25	H1	303.25	S17	273.25
S16	266.25	S15	259.25	H2	311.25	S18	280.25
S17	273.25	S16	266.25	H3	319.25	S19	287.25
S18	280.25	S17	273.25	H4	327.25	S20	294.25
S19	287.25	S18	280.25	H5	335.25	H1	303.25
S20	294.25	S19	287.25	H6	343.25	H2	311.25
H1	303.25	S20	294.25	H7	351.25	H3	319.25
H2	311.25	H1	303.25	H8	359.25	H4	327.25
H3	319.25	H2	311.25	H9	367.25	H5	335.25
H4	327.25	H3	319.25	H10	375.25	H6	343.25
H5	335.25	H4	327.25	H11	383.25	H7	351.25
H6	343.25	H5	335.25	H12	391.25	H8	359.25
H7	351.25	H6	343.25	H13	399.25	H9	367.25
H8	359.25	H7	351.25	H14	407.25	H10	375.25
H9	367.25	H8	359.25	H15	415.25	H11	383.25
H10	375.25	H9	367.25	H16	423.25	H12	391.25
H11	383.25	H10	375.25	H17	431.25	H13	399.25
H12	391.25	H11	383.25	H18	439.25	H14	407.25
H13	399.25	H12	391.25	H19	447.25	H15	415.25
H14	407.25	H13	399.25	21	471.25	H16	423.25
H15	415.25	H14	407.25	22	479.25	H17	431.25
H16	423.25	H15	415.25	23	487.25	H18	439.25
H17	431.25	H16	423.25	24	495.25	H19	447.25
H18	439.25	H17	431.25	25	503.25	21	471.25
H19	447.25	H18	439.25	26	511.25	22	479.25
21	471.25	H19	447.25	27	519.25	23	487.25
22	479.25	21	471.25	28	527.25	24	495.25
23	487.25	22	479.25	29	535.25	25	503.25
24	495.25	23	487.25	30	543.25	26	511.25
25	503.25	24	495.25	31	551.25	27	519.25
26	511.25	25	503.25	32	559.25	28	527.25
27	519.25	26	511.25	33	567.25	29	535.25
28	527.25	27	519.25	34	575.25	30	543.25
29	535.25	28	527.25	35	583.25	31	551.25
30	543.25	29	535.25	36	591.25	32	559.25
31	551.25	30	543.25	37	599.25	33	567.25
32	559.25	31	551.25	38	607.25	34	575.25
33	567.25	32	559.25	39	615.25	35	583.25
34	575.25	33	567.25	40	623.25	36	591.25
35	583.25	34	575.25	41	631.25	37	599.25
36	591.25	35	583.25	42	639.25	38	607.25
37	599.25	36	591.25	43	647.25	39	615.25
38	607.25	37	599.25	44	655.25	40	623.25
39	615.25	38	607.25	45	663.25	41	631.25
40	623.25	39	615.25	46	671.25	42	639.25
41	631.25	40	623.25	47	679.25	43	647.25
42	639.25	41	631.25	48	687.25	44	655.25
43	647.25	42	639.25	49	695.25	45	663.25
44	655.25	43	647.25	50	703.25	46	671.25
45	663.25	44	655.25	51	711.25	47	679.25
46	671.25	45	663.25	52	719.25	48	687.25
47	679.25	46	671.25	53	727.25	49	695.25
48	687.25	47	679.25	54	735.25	50	703.25
49	695.25	48	687.25	55	743.25	51	711.25
50	703.25	49	695.25	56	751.25	52	719.25
51	711.25	50	703.25	57	759.25	53	727.25
52	719.25	51	711.25	58	767.25	54	735.25
53	727.25	52	719.25	59	775.25	55	743.25
54	735.25	53	727.25	60	783.25	56	751.25
55	743.25	54	735.25	61	791.25	57	759.25
56	751.25	55	743.25	62	799.25	58	767.25
57	759.25	56	751.25	63	807.25	59	775.25
58	767.25	57	759.25	64	815.25	60	783.25
59	775.25	58	767.25	65	823.25	61	791.25
60	783.25	59	775.25	66	831.25	62	799.25
61	791.25	60	783.25	67	839.25	63	807.25
62	799.25	61	791.25	68	847.25	64	815.25
63	807.25	62	799.25	69	855.25	65	823.25
64	815.25	63	807.25			66	831.25
65	823.25	64	815.25			67	839.25
66	831.25	65	823.25			68	847.25
67	839.25	66	831.25			69	855.25
68	847.25	67	839.25				
69	855.25	68	847.25				
		69	855.25				

GB
The frequencies used by a cable company may differ from the frequencies on the table. Consult your cable company or your dealer for detailed information.

D
In Kabelfernsehanlagen können Abweichungen von den in den Frequenztabellen aufgeführten Frequenzen vorkommen. Bitte wenden Sie sich an Ihren Fachhändler oder Ihre Kabelfernsehgesellschaft, die Ihnen die zutreffenden Frequenzen mitteilt.

F
Les fréquences utilisées par une société de télédistribution peuvent être différentes de celles sur la liste des fréquences. Consultez votre société de télédistribution ou votre revendeur pour des informations plus détaillées.

NL
De frequenties die gebruikt worden door een kabelmaatschappij kunnen verschillen van deze op de tabel. Raadpleeg uw kabelexploitant of uw handelaar voor meer informatie.

I
Le frequenze usate per una società di teledistribuzione possano essere differenti di quelle nella tabella. Consultate la società di teledistribuzione o il vostro rivenditore per informazione specifica.

E
Las frecuencias utilizadas por las empresas de distribución de señal por cable, pueden ser diferentes de las que se encuentran en esta tabla. Consulte con su compañia de distribución de televisión por cable o con su distribuidor para que le proporcionen una información más detallada.

P
As frequências utilizadas por uma sociedade de teledistribuição podem ser diferentes das indicadas na lista de frequências. Consultar a sociedade de teledistribuição ou o vendedor para informações mais detalhadas.

DK
Frekvenser benyttet af kabel operatører kan være afvigende fra disse, kontakt deres kabel operatør eller forhandler for nærmere informa-tion.

N
Frekvensene som benyttes pa et kabelnett kan avvike fra de som er oppført i tabellen. Kontakt ditt kabel-TV selskap eller din forhandler for nærmere opplysninger.

S
Frekvenserna som används i kabel-TV-näten kan avvika från frekvenserna i tabellen. Kontakta ditt kabel-TV-bolag eller din radiohandlare för vidare information.

SF
Kaapeliyhtiöden käyttämät taajuudet voivat poiketa taulukossa olevista taajuuksista. Tarkat tiedot saat kaapeliyhtiöstä tai myyjältä.

GR
Οι συχνότητες που χρησιμοποιούνται από μια εταιρεία τηλεμετάδοσης είναι δυνατόν να είναι διαφορετικές από αυτές που περιέχει ο κατάλογος. (Συμβουλευθείτε την εταιρεία τηλεμετάδοσης ή τον πωλητή για λεπτομερέστερες πληροφορίες).

CEI
Частоты на которых передаёт телакампания могут отличаться от частот на данной таблице. (Обратиться к Вашей телекампании или Вашему продавцу за дополнительной информацией.

H
Egy televizió–adóállomás sugárzáshoz használt frekvenciatar–tományai lehetnek a táblázatban közöltektől eltérőek is. (Abban az esetben, ha bővebb információkra van szüksége, forduljon az eladóhoz.)

PL
Operator sieci telewizyjnej może stosować inne częstotliwości, niż te, które figurują na tablicy (bardziej szczegółowych infor–macji na ten temat zasięgnąć u operatora lub sprzedawcy).

CZ
Frekvence používané některými televizními společnostmi se mohou lišit od údajů uvedených v tomto seznamu. Informujte se blíže u příslušné společnosti nebo v prodejně, kde jste televizor koupili.

SK
Frekvencie používané niektorými spoločnosťami televízneho prenosu sa môžu líšiť od údajov uvedených v tomto zozname. Informujte sa bližšie u príslušnej spoločnosti alebo v predajni, kde ste televízor kúpili.

TV   **VCR**

TV IN   **VCR IN**

AUDIO

DIGITAL IN

CINEMA LINK   **VCR IN**   **TV IN**

CENTRE OUT

1
2   **EXT.**

2

1

3

4

Recorder   *DVD*

TV   **VCR**

VCR IN   **TV IN**

AUDIO

DIGITAL IN

CINEMA LINK   **VCR IN**   **TV IN**

CENTRE OUT

1
2   **EXT.**

2

1

3

4

Recorder   *DVD*
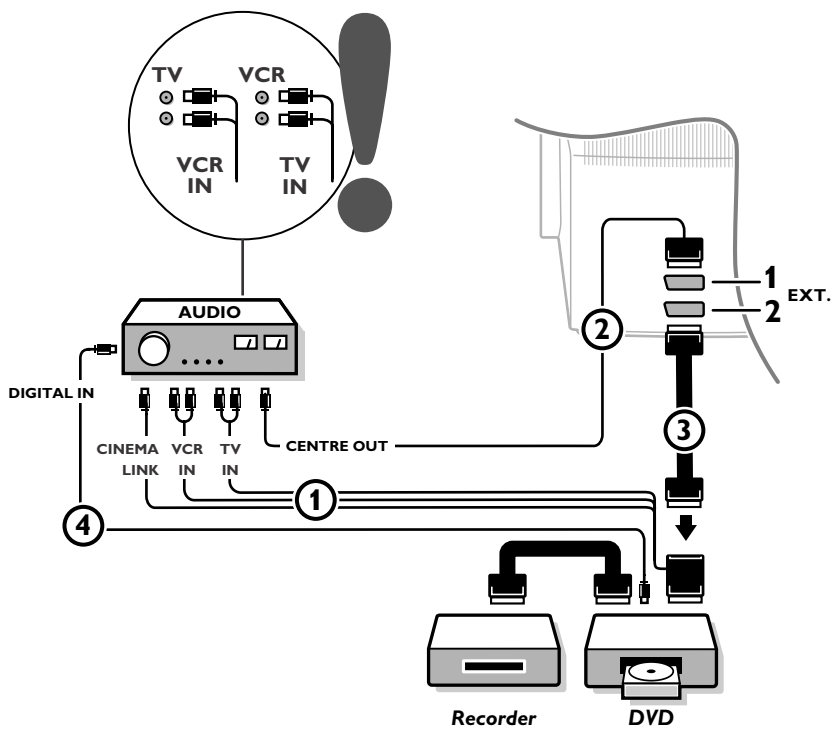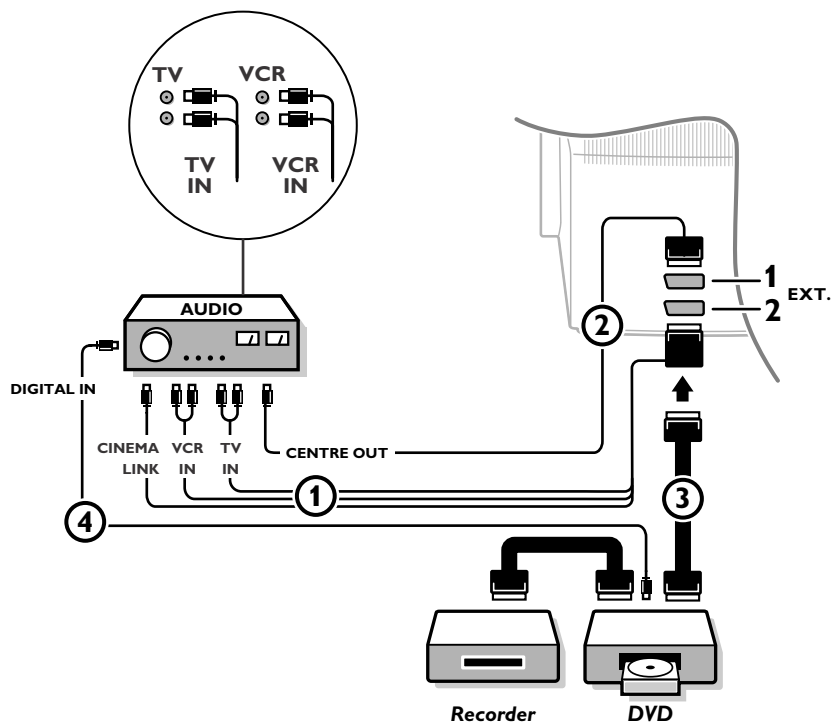
CinemaLink

Note: The Cinema Link functionality is only available with devices of the Cinema Link (P50.3) generation !

Cinema Link is a new Philips feature in which the TV, the audio receiver and other video peripherals communicate with each other (on condition they all are equipped with the Cinema Link functionality and are connected via a eurocable). They automatically offer the highest quality combination of picture and multi channel surround sound to create your own Home Cinema.

Recommended:

Do not use the AC outlet at the back of the audio receiver to power the DVD or the video recorder in a Home Cinema configuration.

The TV can function as the centre speaker of your system, making a separate centre speaker unnecessary.

Configuration of the Cinema Link peripherals

The connection diagram in the inside cover shows you how to connect the Cinema Link peripherals with each other.
Notes:
- *Besides the TV at least one peripheral should be provided with the Cinema Link functionality to benefit from this feature.*
- *To take advantage of the highest quality of multi channel Surround sound it is advisable that you have a Cinema Link audio receiver connected.*
- *The peripherals connected don't need to see the TV remote control in the Cinema Link system. The commands given to the TV are automatically passed to the other peripherals. This allows you to put the peripherals behind the doors of a cabinet or to place them in another room.*
- *To enjoy Digital Surround playback, the digital device (e.g. DVD) should be connected to the digital input of the audio receiver with a separate cinch audio cable ④. If you connect the digital audio output connector of your peripheral equipment to a digital input connector of your audio receiver ④, select the appropriate digital input (1 or 2) in your audio receiver.*

Preparation and Operation

① Cinema Link is switched on as soon as the audio receiver and the TV are switched on. If necessary, Cinema Link may be switched off or on again only on the audio receiver. See the instructions for use of your audio receiver.
Important: When Cinema Link is switched on all audio commands control the audio receiver instead of the TV.

② The message **CINEMALINK ON** is displayed on the audio receiver and on the TV. Now the CinemaLink system is activated.
Note: it is recommended to disable CinemaLink when the receiver is used to record a CD e.g. or when using a headphone when others are watching TV.

Now you can adjust the initial TV settings for optimal surround sound and install the audio channels before starting up one of the CinemaLink devices. The system information about country choice, menu language and picture format you set up during the installation of the TV is transferred to the audio receiver automatically.
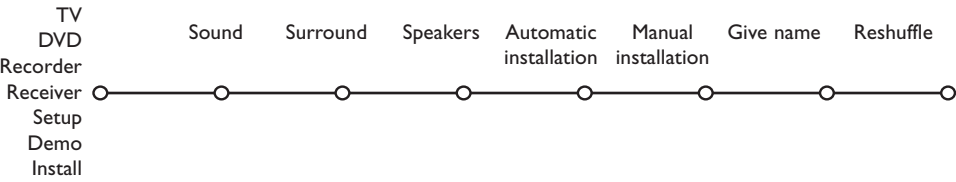
TV as centre speaker

See the Instructions for Use of the TV, Setup, Source menu, Centre input.
Use the test tone function in the Speakers menu to have a reference of the loudness of the separate speakers.
Note: If you want the loudspeakers of your TV to act as centre speaker, also connect a cinch to scart cable (not supplied) ② to EXT1 of your TV.

1

Receiver menu

| TV DVD Recorder Receiver Setup Demo Install	Sound	Surround	Speakers	Automatic installation	Manual installation	Give name	Reshuffle

Note: When Cinema Link is enabled, certain items of the Sound menu (see TV menu) are steered by the audio receiver instead of by the TV.

1 Press the **MENU** key on the remote control.

2 Press the cursor down to select **Receiver**.

3 Press the cursor right to enter the Receiver menu items.

4 Press the cursor up/down to select the submenu items.

Note: the audio receiver submenu items may only be selected if provided by the audio receiver (dependent on the configuration setup and the sound signals transmitted).

Sound menu

Dependent on the audio receiver speakers configuration, you may not be able to select certain menu items.

Sound
Receiver
Smart Sound
Treble
Bass
Loudness
3D effect
Night mode
Audio Only
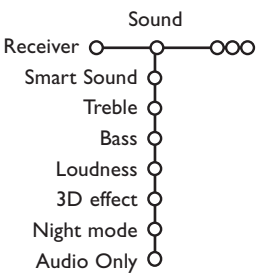
Smart Sound, Treble, Bass

See the Instructions for Use for the TV.

Loudness

When **Loudness On** is selected and when listening at low volume, the low and high frequencies are amplified so that the natural balance is restored.

3D effect

3D effect enables you to experience the effect of Dolby Surround Pro Logic without the need of having rear speakers connected or activated.
Select the level of 3D effect with the cursor left/right.

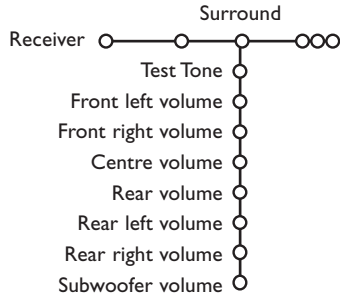**Night mode** *(only functional with Dolby Digital sound broadcasting input)*

The loud parts of the sound are lowered and the soft passages are raised.
You can enjoy surround sound without disturbing sleeping children or neighbours.

Audio only

This control enables you to blank the TV picture if the TV is used as centre speaker in the Cinema Link system and if the audio receiver is reproducing sound unrelated to a TV picture.
Switch **Audio only On** to only hear the sound and to switch off the picture.
The message **Audio only** appears on screen.

Surround menu

Dependent on the audio receiver speakers configuration, you may not be able to select certain menu items.

```
                    Surround
Receiver  O———————O————————OOO
              Test Tone  O
        Front left volume  O
       Front right volume  O
          Centre volume  O
            Rear volume  O
        Rear left volume  O
       Rear right volume  O
        Subwoofer volume  O
```

Adjustment of the volume level of the loudspeakers

Note: the test tone function is automatically cancelled by the audio receiver when leaving the Surround menu.
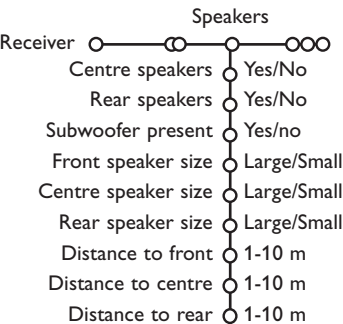
1 Select **Test Tone On**.
A steady noise tone is switched sequentially through the available loudspeakers, except for the subwoofer, for 2 seconds each. This enables you to have a reference of the loudness of each loudspeaker and to adjust the level of each until they all sound equally loud.
The loudspeakers activated light up in the screen graphic.

2 Select the Surround menu items with the cursor up/down one after another and alter the selected adjustments with the cursor left/right.
The best result is achieved when all speakers have equal volume in your usual listening position.

3 Select **Test tone Off** when you have finished the adjustment of the speaker levels.

Speakers menu

Dependent on the audio receiver speakers configuration, you may not be able to select certain menu items.
Once the number and position of the loudspeakers has been fixed, selecting Centre speaker, Rear Speakers and Subwoofer Yes or No, you can adjust the initial receiver settings, size and distance, for optimal surround sound.
Note: after changing the configuration, the menu will disappear temporarily and re-appear again after the new settings will be updated.

```
                    Speakers
Receiver  O———————O————————OOO
       Centre speakers  O  Yes/No
        Rear speakers  O  Yes/No
     Subwoofer present  O  Yes/no
    Front speaker size  O  Large/Small
   Centre speaker size  O  Large/Small
     Rear speaker size  O  Large/Small
      Distance to front  O  1-10 m
     Distance to centre  O  1-10 m
       Distance to rear  O  1-10 m
```

Size of the speakers

Select **Small** if your speaker is able to reproduce low notes down to at least 80-100 Hz. Select **Large** if your speaker is able to reproduce low notes down to at least 50 Hz.
*Note:*
- *As a rule of thumb, a large speaker has a cone diameter of at least 12 cms (5 inches). See the specification sheet of your loudspeakers.*
- *If Subwoofer present is set to No, Front speaker size can only be set to Large. If Front speaker size is set to Small, Centre speaker size can only be set to Small and consequently a subwoofer must be connected.*

Distance to the speakers

Select the distance from your usual listening position to the available speakers each; front, centre and rear speakers.
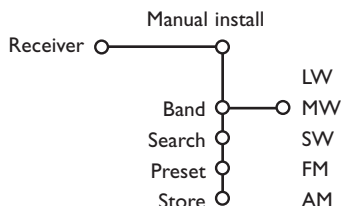This defines the delay time for the surround sound.

Automatic installation

```
                    Automatic install
Receiver o———————————o
                    |
        Install o———————o Start
```
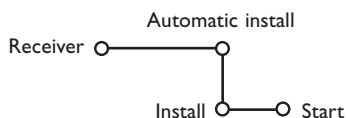
In the Automatic installation menu select **Start** to activate the automatic searching of all radio stations which can be received.
The programme list is automatically filled with all the numbers and names of the radio stations transmitted.

Manual installation

```
                Manual install
Receiver o———————————o
                    |          LW
        Band o———————o MW
      Search o                 SW
      Preset o                 FM
       Store o                 AM
```

You can also search for a known radio station by keying in the frequency.

1 First select **Band** to switch to the desired waveband: **LW**, **MW**, **SW**, **FM** or **AM**.

2 Select **Search** and press the cursor right.
The frequency increases until a radio station is found.
If you know the 3-digit frequency, enter it directly with the digit keys 0 to 9.
Select **Preset** to enter the preset number using a three digit entry with the digit keys.

3 To store your radio station, select **Store** and press the **OK** key.

4 Repeat steps 1 to 3 to store another radio station.

Give name - Reshuffle

```
                    Give name    Reshuffle
Receiver o—o—o—o—o———————o———————o
```
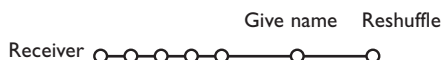
To assign or change a name to a radio station or to change the order of the stored radio stations according to your preference, act in the same way as with giving a name or reshuffling the programme list of TV channels.
See the Instructions for Use of the TV.